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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/923,659

08/07/2001

Xiang-Dong Mi

82965

1129

7590

03/29/2004

Patent Legal Staff  
Eastman Kodak Company  
343 State Street  
Rochester, NY 14650-2201

EXAMINER

NGUYEN, JOSEPH H

ART UNIT

PAPER NUMBER

2815

DATE MAILED: 03/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

8M.

# Office Action Summary

Application No.

09/923,659

Applicant(s)

MI ET AL.

Examiner

Joseph Nguyen

Art Unit

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by West et al.

Regarding claim 1, West et al discloses on figure 1 a cholesteric liquid crystal display for producing gray scale image comprising a layer 16 including a polymeric host material, cholesteric liquid crystals in the host material and having a selected domain size, and a surfactant, the materials in the layer selected to cause the cholesteric liquid crystals to be effective in a number of different states of reflectivity and will remain in any given state until a field is applied; electrodes 10,11 disposed relative to the layer for applying an electric field to the layer when a voltage is applied to the electrodes; and means 17 for applying at least one voltage pulse to the electrodes which cause the direct change of the electrodes liquid crystals from any initial state to a particular state within a selected gray scale.

Art Unit: 2815

Regarding claim 5, West et al discloses on figure 1 a cholesteric liquid crystal display for producing gray scale images comprising a layer 16 including a polymeric host material, cholesteric liquid crystals in the host material and having a selected domain size and a surfactant, the materials in the layer selected to cause the cholesteric liquid crystals to be effective in a number of different states of reflectivity and will remain in any given state until a field is applied the cholesteric liquid crystals wherein for a given set of drive signals, the cholesteric material changing to a state between the focal conic and planar states irrespective of the initial state of the material; electrodes 10, 11 disposed relative to the layer for applying an electric field to the layer when a voltage is applied to the electrodes; and means 17 for applying the drive signals in the form of voltage pulses to the electrodes which cause the direct change of the cholesteric liquid crystals from any initial state to a particular state within a selected gray scale.

Regarding claim 6, West et al discloses on figure 1 a plurality of displays in accordance with the cholesteric liquid crystals in the different displays producing a different color to thereby produce a multicolored image.

Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Stephenson et al '262 or Stephenson 2002/0093605.

Regarding claims 1-6, Stephenson et al '262 (figure 2A) or Stephenson 2002/0093605 (figure 8) discloses all the structures set forth in the claimed invention.

***Response to Arguments***

Applicant's arguments filed on 2/18/2004 have been fully considered but they are not persuasive.

With respect to claim 1, applicant argues that West et al does not disclose, "means for applying at least one voltage pulse to the electrodes which cause the direct change of the cholesteric liquid crystals from any initial state to a particular state within a selected gray scale". However, West et al clearly discloses on figure 1 means 17 for applying at least one voltage pulse to the electrodes 10, 11 which cause the direct change of the cholesteric liquid crystals from any initial state to a particular state within a selected gray scale. Note that when a voltage is applied at the electrodes, the device would normally respond in a direct change from initial state to a particular state within selected gray scale. The terms "direct change" and "selected gray scale" are broad limitations, which do not encompass any specific direct change or specific gray scale therein. Therefore, West et al does not structurally distinguish from claim 1.

Similarly, when a voltage is applied at the electrodes in figure 2A of Stephenson et al, it would cause the direct change of the cholesteric liquid crystals from any initial state to a particular state within a selected gray scale as recited in claims 1 and 4 thereof.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2815

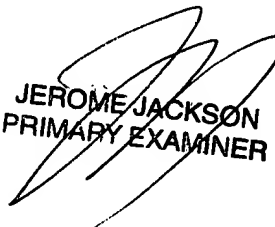
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Nguyen whose telephone number is (571) 272-1734. The examiner can normally be reached on Monday-Friday, 7:30 am- 4:30 pm

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (571) 272-1664. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for regular communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JN  
March 24, 2004

  
JEROME JACKSON  
PRIMARY EXAMINER